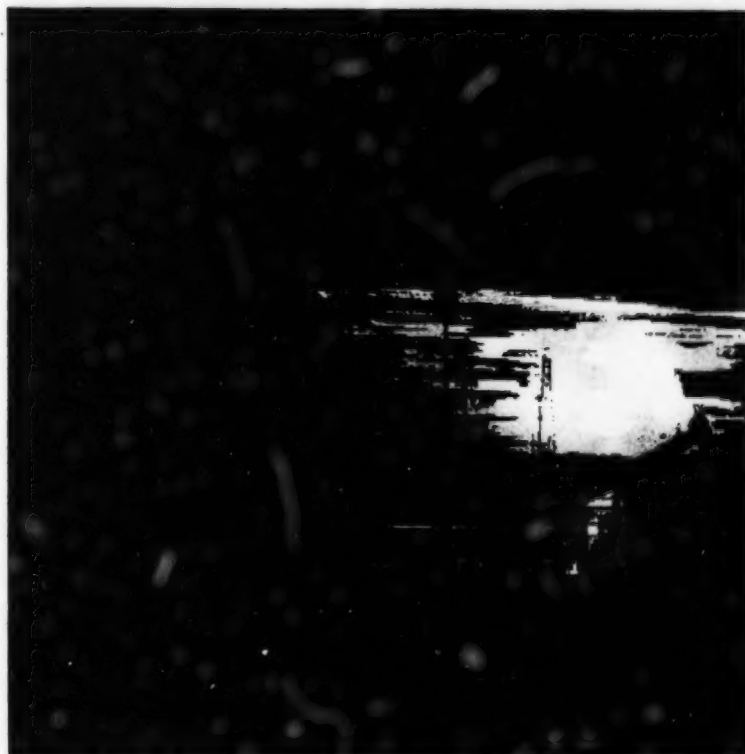


OCCUPATIONAL INJURY AND DISEASE IN ALBERTA

Tar Sands 1994 to 1998



Upstream
Oil and Gas

Subsector #6

Alberta
HUMAN RESOURCES
AND EMPLOYMENT

July 1999

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TAR SANDS

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1. Sub-Sector Description

Sub-Sector # 6: Tar Sands

i. Mining & Processing of Bituminous Sands for Oil Extraction (Industry # 06600)

The industry covers employers engaged in both the mining and the processing of bituminous sands which at this time is exclusive to the Athabasca oil sands deposits.

This is an open pit mining process that removes oil laden sand from the earth and transport this sand to an extraction plant.

Draglines with booms measuring over 100 metres, are equipped with enormous buckets that dig up the oil sand. Bucket wheel excavators, equipped with a series of toothed bucket on a revolving wheel, are used to scoop up the sand and put it on conveyors or loaded onto specialized trucks for transport to an extraction plant. Bitumen is then separated from the sand, in the plant, by a series of automated units using steam and chemical agents. Once the raw bitumen is separated, it is upgraded into synthetic crude oil because it contains impurities, and its too thick and heavy to flow through pipelines.

Upgrading units include the coker, which breaks down the bitumen into smaller molecules and the fractionator, which separates the bitumen products into gas, naphtha and gas-oil molecules, removing the impurities. Upgrading plants are comparable to oil refineries in many ways. The end product, synthetic crude oil, is shipped to refineries for further processing into other products such as gasoline, jet fuel and lubricating oil.

ii. Research & Development, Oil Sands & Heavy Oil Recovery (Industry # 06601)

Employers in this industry specialize in research and development into new technologies for recovering oil from heavy oil deposits and bituminous sand through 'in situ' or 'well' recovery methods.

Employers will design and operate test facilities for the research and development purpose. This is purely a research industry and is not intended for exploration or commercial processing activities. Once employers begin operating on a commercial basis, the operation would be classified in industry 06300.

Contract operators may be engaged to operate test facilities and would be classified along with other upstream production operators in industry 06305.

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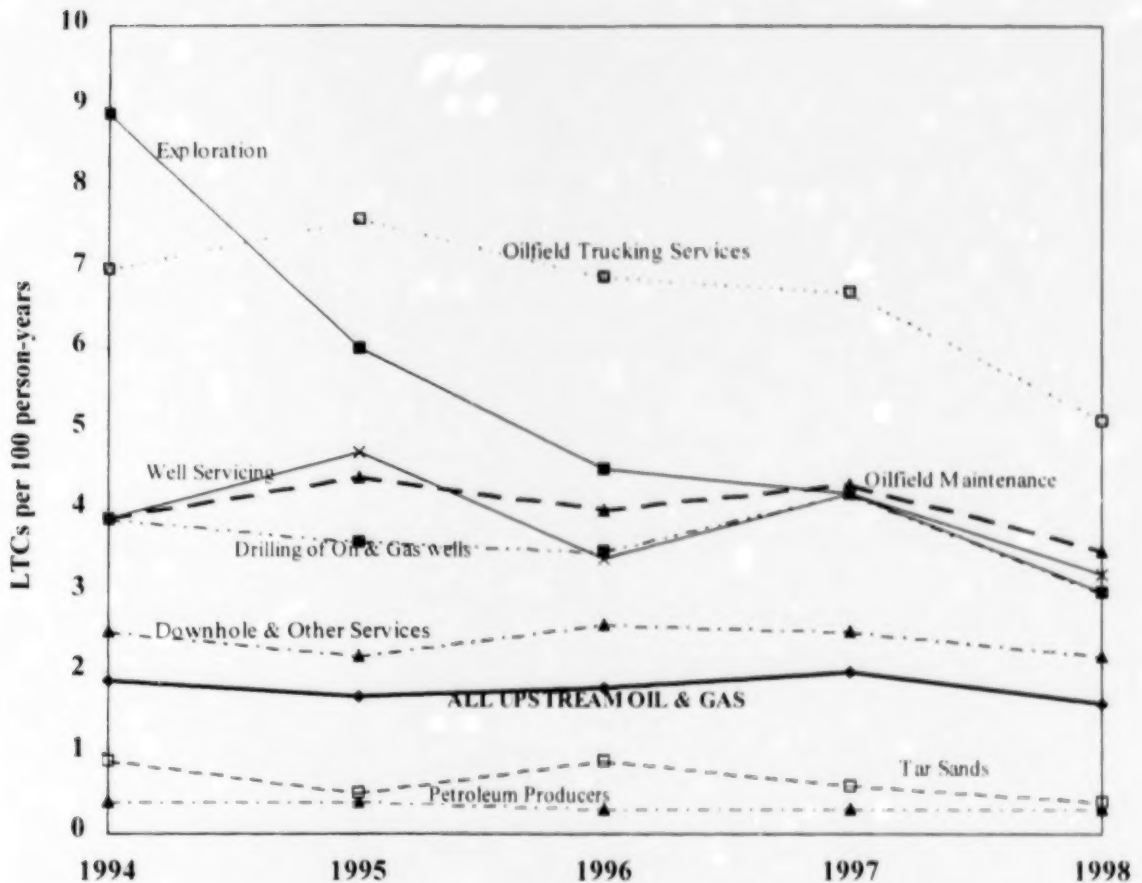
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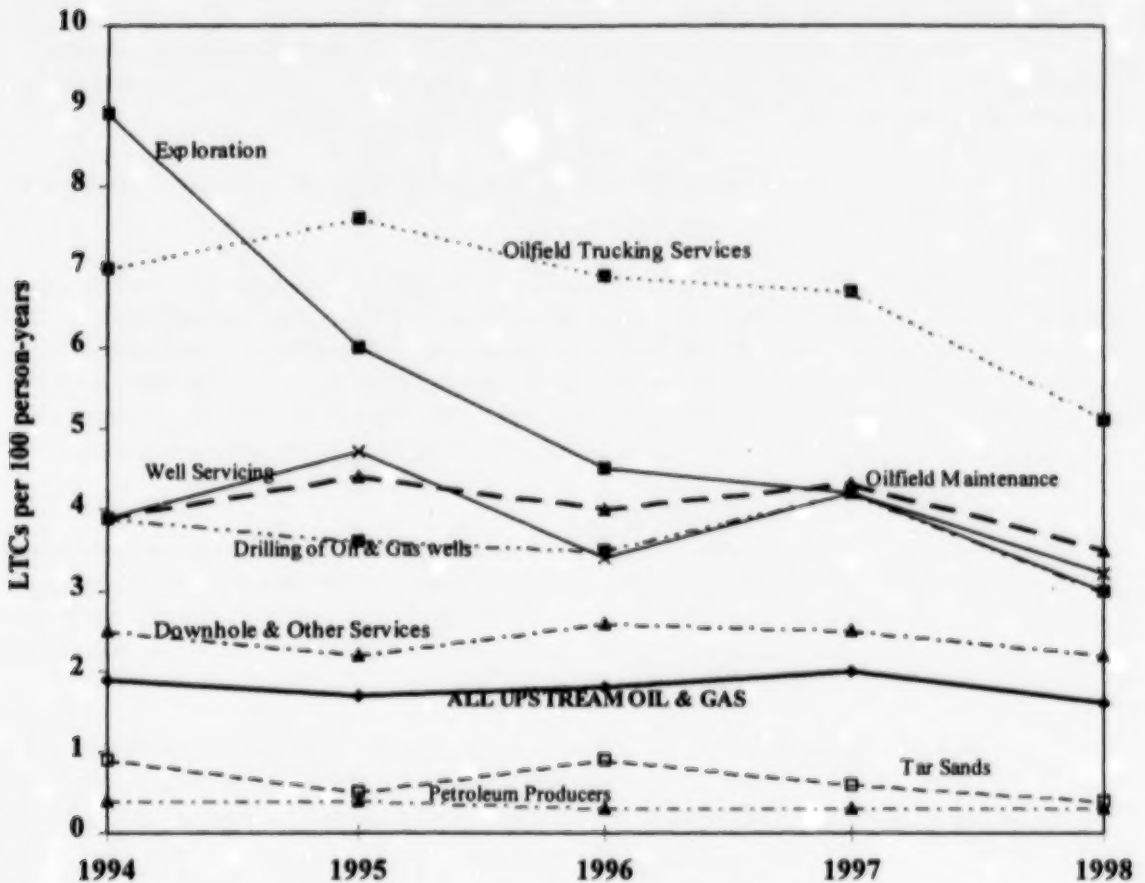
Lost-Time Claim Rates All Upstream Oil & Gas Subsectors Alberta 1994-1998



Lost-Time Claim Rate	1994	1995	1996	1997	1998
All Upstream Oil and Gas	1.9	1.7	1.8	2.0	1.6
Exploration	8.9	6.0	4.5	4.2	3.0
Oilfield Maintenance and Construction	3.9	4.4	4.0	4.3	3.5
Well Services with Service Rigs	3.9	4.7	3.4	4.2	3.2
Drilling of Oil and Gas	3.9	3.6	3.5	4.2	3.0
Downhole & Other Oilfield Services	2.5	2.2	2.6	2.5	2.2
Tar Sands	0.9	0.5	0.9	0.6	0.4
Petroleum Producers	0.4	0.4	0.3	0.3	0.3
Oilfield Trucking Services	7.0	7.6	6.9	6.7	5.1

2.

Lost-Time Claim Rates All Upstream Oil & Gas Subsectors Alberta 1994-1998



Lost-Time Claim Rate	1994	1995	1996	1997	1998
Exploration	8.9	6.0	4.5	4.2	3.0
Oilfield Maintenance and Construction	3.9	4.4	4.0	4.3	3.5
Well Services with Service Rigs	3.9	4.7	3.4	4.2	3.2
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Downhole & Other Oilfield Services	2.5	2.2	2.6	2.5	2.2
Tar Sands	0.9	0.5	0.9	0.6	0.4
Petroleum Producers	0.4	0.4	0.3	0.3	0.3
Oilfield Trucking Services	7.0	7.6	6.9	6.7	5.1

3. LTC Rates & Duration Rates

Tar Sands

Year	# of Accounts	Cost	Person Years	Days Lost	Duration Rate	LTCs	LTC Rate
94	14	\$350,948	6,503	1,057	16	60	0.9
95	12	\$270,824	6,975	519	7	37	0.5
96	11	\$132,309	6,051	539	9	54	0.9
97	11	\$145,657	6,025	702	12	35	0.6
98	14	\$52,662	6,921	306	N/A	26	0.4

3.1 LTC Rate By Industry

Mine/Process - Bituminous Sand

Year	# of Accounts	Cost	Person Years	Days Lost	Duration Rate	LTCs	LTC Rate
94	11	\$347,898	6,426	998	16	59	0.9
95	10	\$270,824	6,943	519	7	37	0.5
96	8	\$131,691	6,023	536	9	53	0.9
97	8	\$145,657	6,002	702	12	35	0.6
98	11	\$52,662	6,900	306	N/A	26	0.4

Oil Sands/Heavy Oil Research/Development

Year	# of Accounts	Cost	Person Years	Days Lost	Duration Rate	LTCs	LTC Rate
94	3	\$3,052	77	59	N/A	1	1.3
95	2	\$0	32	0	N/A	0	N/A
96	3	\$618	28	3	N/A	1	N/A
97	3	\$0	23	0	N/A	0	N/A
98	3	\$0	22	0	N/A	0	N/A

3.2 LTC Rate by Size of Employer:1998

Size of Employer	# of Accounts	LTCs	Person - Years	LTC Rate
A: 0< PYs <=1	1	N/A	0	N/A
B: 1 < PYs < 5	6	N/A	14	N/A
D: 10 <= PYs < 20	4	N/A	70	N/A
G: PYs >=100	3	26	6,838	0.4
Total	14	26	6,921	0.4

4. Analysis of The Lost-Time Claims

4.1 Nature of Injury

LOST-TIME CLAIMS ALBERTA: 1994 TO 1998	OCCURRENCE YEAR					Total	
	94	95	96	97	98	Number	Percent
SPRAIN, STRAIN	35	13	22	10	15	95	44.8
OTHER DISEASE							
HEARING LOSS, IMPAIRMENT	6	5	11	3	1	26	12.3
DISEASE OF NERVOUS SYSTEM	2	2	.	1	.	5	2.4
OTHER NATURE	2	2	.	4	.	8	3.8
SUBTOTAL	10	9	11	8	1	39	18.4
BRUISE, CONTUSION, CRUSHING	3	3	6	4	2	18	8.5
FRACTURE & DISLOCATION							
FRACTURE	3	3	5	6	.	17	8.0
SUBTOTAL	3	3	5	6	.	17	8.0
CUT, LACERATION, PUNCTURE	1	2	2	3	2	10	4.7
INFLAMED/IRRITATED JOINTS, ETC.	2	2	2	1	2	9	4.2
OTHER INJURY	2	1	2	1	1	7	3.3
BURN, SCALD-THERMAL	.	2	1	1	1	5	2.4
ALL OTHER NATURES, UNS	4	2	3	1	2	12	5.7
Total	60	37	54	35	26	212	100.0

4.2 Part of Body Affected

LOST-TIME CLAIMS ALBERTA: 1994 TO 1998	OCCURRENCE YEAR					Total	
	94	95	96	97	98	Number	Percent
BACK							
LUMBAR (LOWER BACK)	14	4	2	1	1	22	10.4
OTHER PART	6	5	12	6	8	37	17.5
SUBTOTAL	20	9	14	7	9	59	27.8
OTHER HEAD, NECK							
EAR(S)-INTERNAL	6	5	11	3	1	26	12.3
NECK	4	4	2	1	2	13	6.1
OTHER PART	1	.	2	.	1	4	1.9
SUBTOTAL	11	9	15	4	4	43	20.3
LEG(S)							
KNEE	5	1	3	.	2	11	5.2
LOWER LEG	1	1	1	1	1	5	2.4
OTHER PART	1	.	4	1	1	7	3.3
SUBTOTAL	7	2	8	2	4	23	10.8
ANKLE(S) & FOOT(FEET)-NOT TOES							
ANKLE(S)	4	2	5	4	1	16	7.5
FOOT(FEET)-NOT ANKLES OR TOES	.	1	2	2	.	5	2.4
SUBTOTAL	4	3	7	6	1	21	9.9
OTHER TRUNK							
SHOULDER(S)	3	2	.	1	.	6	2.8
CHEST-INCLUDES INTERNAL ORGANS	1	.	.	2	2	5	2.4
OTHER PART	2	3	.	.	.	5	2.4
SUBTOTAL	6	5	.	3	2	16	7.5
WRIST(S) & HAND(S)-NOT FINGERS							
WRIST(S)	2	2	1	2	1	8	3.8
OTHER PART	.	1	1	.	.	2	0.9

(CONTINUED)

Part of Body Affected (continued)

LOST-TIME CLAIMS ALBERTA: 1994 TO 1998	OCCURRENCE YEAR					Total	
	94	95	96	97	98	Number	Percent
WRIST(S) & HAND(S) - NOT FINGERS							
SUBTOTAL	2	3	2	2	1	10	4.7
FACE	.	1	2	4	1	8	3.8
MULTIPLE MAJOR BODY PARTS	2	2	1	2	1	8	3.8
FINGER(S)	2	1	2	2	.	7	3.3
ARM(S) (ABOVE WRIST)	1	.	2	.	2	5	2.4
ALL OTHER PARTS, UNS	5	2	1	3	1	12	5.7
Total	60	37	54	35	26	212	100.0

4.3 Duration of Disability

LOST-TIME CLAIMS ALBERTA: 1994 TO 1998	OCCURRENCE YEAR					Total	
	94	95	96	97	98	Number	Percent
01 - 05 DAYS LOST	32	13	21	10	4	80	37.7
06 - 10 DAYS LOST	2	2	4	3	4	15	7.1
11 - 15 DAYS LOST	5	4	4	3	2	18	8.5
16 - 20 DAYS LOST	.	.	1	2	1	4	1.9
21 - 30 DAYS LOST	2	4	3	3	2	14	6.6
31 - 40 DAYS LOST	2	1	1	.	1	5	2.4
41 - 50 DAYS LOST	.	1	.	.	3	4	1.9
51 OR MORE DAYS LOST	9	4	4	6	.	23	10.8
DAYS LOST - UNSPECIFIED, 0	8	8	16	8	9	49	23.1
Total	60	37	54	35	26	212	100.0

4.4 Source of Injury

LOST-TIME CLAIMS ALBERTA: 1994 TO 1998	OCCURRENCE YEAR					Total	
	94	95	96	97	98	Number	Percent
SOURCE-UNS	11	8	11	7	1	38	17.9
SOURCE-NEC							
NOISE	6	5	9	3	1	24	11.3
OTHER SOURCE	2	4	.	3	2	11	5.2
SUBTOTAL	8	9	9	6	3	35	16.5
BODILY MOTION							
REPETITIVE MOTION	5	.	.	.	.	5	2.4
FREE MOVEMENT (EG. RUNNING)	3	2	.	.	.	5	2.4
OTHER SOURCE	3	5	9	3	4	24	11.3
SUBTOTAL	11	7	9	3	4	34	16.0
WORKING SURFACES	6	5	7	7	5	30	14.2
VEHICLES							
HIGHWAY VEHICLES (POWERED)	2	1	4	3	4	14	6.6
OTHER SOURCE	4	2	2	.	1	9	4.2
SUBTOTAL	6	3	6	3	5	23	10.8
METAL ITEMS-NEC							
PIPE AND FITTINGS	3	.	2	2	.	7	3.3
OTHER SOURCE	2	2	2	.	.	6	2.8
SUBTOTAL	5	2	4	2	.	13	6.1
HANDTOOLS-UNPOWERED	2	.	4	1	2	9	4.2
CHEMICALS	2	1	.	3	.	6	2.8
MACHINES	.	.	2	1	2	5	2.4
ALL OTHER SOURCES	9	2	2	2	4	19	9.0
Total	60	37	54	35	26	212	100.0

4.5 Type of Event

LOST-TIME CLAIMS ALBERTA: 1994 TO 1998	OCCURRENCE YEAR					Total	
	94	95	96	97	98	Number	Percent
BODILY REACTION							
REACTION FROM VOLUNTARY MOTION	7	2	3	1	1	14	6.6
REACTION FROM INVOLUNTARY MOTION	4	1	4	.	.	9	4.2
OTHER TYPE	.	.	2	2	2	10	4.7
SUBTOTAL	11	7	9	3	3	33	15.6
OVEREXERTION							
LIFTING OBJECTS	6	3	4	1	1	15	7.1
OTHER TYPE	6	2	4	2	4	18	8.5
SUBTOTAL	12	5	8	3	5	33	15.6
EVENT TYPE-NEC							
* REPEAT NOISE EXP	5	4	7	2	1	19	9.0
EXPOSURE TO NOISE	1	1	2	1	.	5	2.4
OTHER TYPE	1	.	1	.	1	3	1.4
SUBTOTAL	7	5	10	3	2	27	12.7
VEHICLE INCIDENTS	5	2	4	3	6	20	9.4
FALL ON SAME LEVEL							
FALL TO WALKWAY, WORKING SURFACE	2	4	4	1	2	13	6.1
OTHER TYPE	1	.	2	1	1	5	2.4
SUBTOTAL	3	4	6	2	3	18	8.5
STRUCK BY	.	3	5	5	1	14	6.6
FALL FROM ELEVATION	4	3	.	5	2	14	6.6
CAUGHT IN, UNDER OR BETWEEN	4	.	4	3	.	11	5.2
CONTACT NOXIOUS SUBSTANCE	2	1	.	4	.	7	3.3
STRUCK AGAINST	3	.	1	1	1	6	2.8
ALL OTHER TYPES, UNS	9	7	7	3	3	29	13.7
Total	60	37	54	35	26	212	100.0

5. Characteristics of The Injured Worker

5.1 Occupation of Injured Worker

LOST-TIME CLAIMS ALBERTA: 1994 TO 1998	OCCURRENCE YEAR					Total	
	94	95	96	97	98	Number	Percent
FABRICATING, REPAIR							
MECHANICS-INDUSTRIAL, FARM MACHINERY	11	4	4	9	5	33	15.8
MECHANICS-MOTOR VEHICLE	2	1	2	.	1	6	2.8
OTHER OCCUPATION	3	.	.	.	.	3	1.4
SUBTOTAL	16	5	6	9	6	42	19.8
CONSTRUCTION OCCUPATIONS							
EXCAVATING, GRADING, PAVING-NEC	8	1	4	4	3	20	9.4
EXCAVATING, GRADING, ETC.	1	2	1	3	1	8	3.8
PIPEFITTING & PLUMBING	1	2	.	1	2	6	2.8
OTHER OCCUPATION	.	2	2	.	3	7	3.3
SUBTOTAL	10	7	7	8	9	41	19.3
OIL & GAS FIELD, MINING							
OIL & GAS, MINING-NEC	3	2	3	1	1	10	4.7
CUT, HANDLE, LOAD-OIL & GAS, MINING	1	.	2	1	1	5	2.4
OTHER OCCUPATION	1	1	.	.	1	3	1.4
SUBTOTAL	5	3	5	2	3	18	8.5
MATERIALS HANDLING-NEC	4	1	4	4	1	14	6.6
MACHINING	4	1	1	1	3	10	4.7
CLERICAL	3	4	.	1	.	8	3.8
PROCESSING	.	4	2	1	.	7	3.3
ALL OTHER OCCUPATIONS, UNS	18	12	29	9	4	72	34.0
Total	60	37	54	35	26	212	100.0

5.2 Age of Injured Worker

LOST-TIME CLAIMS ALBERTA: 1994 TO 1998	OCCURRENCE YEAR					Total	
	94	95	96	97	98	Number	Percent
15-19 YEARS	.	.	.	1	1	2	0.9
20-24 YEARS	2	.	1	.	1	4	1.9
25-34 YEARS	16	12	9	5	4	46	21.7
35-44 YEARS	24	14	22	18	9	87	41.0
45-54 YEARS	14	8	15	9	9	55	25.9
55-64 YEARS	4	3	6	2	2	17	8.0
65 YRS AND OVER	.	.	1	.	.	1	0.5
Total	60	37	54	35	26	212	100.0

5.3 Length of Time Employed

LOST-TIME CLAIMS ALBERTA: 1994 TO 1998	OCCURRENCE YEAR					Total	
	94	95	96	97	98	Number	Percent
A. LESS THAN 1 MONTH	1	1	.	.	.	2	0.9
B. 1 MONTH TO < 6 MONTHS	1	1	.	1	1	4	1.9
C. 6 MONTHS TO < 1 YEAR	.	.	.	.	1	1	0.5
D. 1 YEAR OR MORE	43	27	33	21	16	140	66.0
E. TIME-UNSPECIFIED	15	8	21	13	8	65	30.7
Total	60	37	54	35	26	212	100.0

5.4 Gender of Injured Worker

LOST-TIME CLAIMS ALBERTA: 1994 TO 1998	OCCURRENCE YEAR					Total	
	94	95	96	97	98	Number	Percent
MALE	53	31	47	32	21	184	86.8
FEMALE	7	6	6	3	5	27	12.7
GENDER-UNSPECIFIED	.	.	1	.	.	1	0.5
Total	60	37	54	35	26	212	100.0

6. Number of Employers that Received/Renewed a CoR in 1998

	Certified Employers	Cert. & Uncert. (# of Accounts)	% Certified
Sub-Sector # 6			
Industry 06600-Mine/Process of Oil Sands	0	11	
Industry 06601-Oil Sands Research /Development	0	3	
Tar Sands	0	14	0.0%
UPSTREAM OIL & GAS SECTOR	119	7,205	1.7%

7. Cost of Claims, Payroll and Premiums

Transaction Year	Occurrence Year				
	1994	1995	1996	1997	1998
1994	\$310,786				
1995	\$208,244	\$235,627			
1996	\$129,566	\$117,533	\$112,800		
1997	\$84,779	\$10,726	\$214,119	\$103,369	
1998	\$107,654	\$11,395	\$11,664	\$160,247	\$63,008
Total Cost	\$841,028	\$375,282	\$338,584	\$263,616	\$63,008

Total Payroll	\$246,531,520	\$239,070,109	\$239,160,207	\$242,469,869	\$259,205,682
Total Premiums	\$1,827,818	\$1,793,299	\$1,720,439	\$2,182,740	\$1,319,745

The above costs of claims, payroll and premiums are for the five year period 1994 through 1998. The data is as at July, 1999.

The claim cost amount reflect only paid costs on claims which have occurred in the five year period. These paid cost are tracked by year of occurrence and year that the cost were transacted.

The payroll have been totaled for each year. The premiums is the total of employer's premiums paid for each year.

8. Occupational Fatalities

An occupational fatality is the death of a worker which results from a work-related incident or exposure. Alberta Labour classifies occupational fatalities into three general types: motor vehicle incident, workplace incident and occupational diseases. Each is described in detail below.

Motor Vehicle Incident

Motor vehicle incident typically involve highway vehicles operating on public roads in which the fatally injured worker was either the driver or a passenger. This category also includes fatalities involving air plane crashes, train crashes, helicopter crashes. etc.

Workplace Incident

Fatal workplace incidents consists of cases in which the worker dies at a work site, or as a result of injuries sustained at a work site. It is this type of fatality that Alberta Labour may be responsible for investigating.

Occupational Diseases

Occupational disease fatalities consist mostly of recognized occupational disease, that is, disease known to be primarily or exclusively work-related (e.g. asbestosis, black lung disease). Occupational diseases are frequently diagnosed many years after the initial or crucial exposure to the toxic substance, and in such cases it is very difficult to determine when the fatal exposure occurred. Thus, the occupational disease category, should not be interpreted to reflect present work site hazardous conditions or exposures.

Each year the Workers' Compensation Board (WCB) accepts some occupational fatality claims for compensation. Claims accepted in a particular year does not imply the fatalities occurred in that year.

**Description of Tar Sands Fatalities
Accepted by the WCB
Alberta, 1992-1998**

Year	Occupational Disease		Motor Vehicle incident		Workplace Incident		Total	
	N	%	N	%	N	%	N	%
1992	0	0.0	0	0.0	0	0.0	0	100
1993	0	0.0	0	0.0	0	0.0	0	100
1994	0	0.0	0	0.0	1	100.0	1	100
1995	1	50.0	0	0.0	1	50.0	2	100
1996	0	0.0	0	0.0	0	0.0	0	100
1997	0	0.0	0	0.0	0	0.0	0	100
1998	0	0.0	0	0.0	0	0.0	0	100
Total	1	33.3	0	0.0	2	66.7	3	100

9. OHS Investigated Occupational Fatalities: 1993-1998

YEAR:	1994	FILE:	0783
OCCUPATION:	Senior Operator (Heavy Equipment)	AGE:	33
	Working as Cable Reel Car Operator at the time of		the accident

INDUSTRY:	Mine & Process Bituminous Sand
EXPERIENCE:	14 years

DESCRIPTION: The operator of a cable reel car was crushed/asphyxiated by the impacting weight of the bucketwheel's counterweight assembly. The accident was the result of a critical structural support member on a bucketwheel excavator that failed. The structural failure resulted in the counterweight assembly on the bucketwheel to fall onto an adjacent piece of equipment, a cable reel car. The incident occurred at a tarsands mining operation. The deceased had been operating the cable reel car as one component in a combined operation with the bucketwheel excavator to rehandle tarsands that had been dumped in front of the bucketwheel previously. The excavating process had just commenced when the failure occurred.

YEAR:	1995	FILE:	0818
OCCUPATION:	Ground Hand	AGE:	31
INDUSTRY:	Mining and Processing of Bituminous Sand for Oil Extraction		
EXPERIENCE:	Unknown		

DESCRIPTION: The replacement groundsman was on the ground helping the cable tractor operator to relocate the dragline's power cable. This routine operation involves moving power cable with the cable tractor, so the walking shoes of the dragline would not step down onto the cable in the walking mode. After relocating the cable, the groundsman was directing the dragline operator to align the shoes in preparation for walking back to the previous location to resume excavation. The groundsman was in a crouched position with his back to and in direct line of travel of the reversing cable tractor. The back-up alarm on the tractor was not working. The tractor operator was unaware of the presence of the groundsman, and the groundsman did not sense the approaching tractor. The dragline operator tried to warn the groundsman by blowing the dragline horn. He did not succeed in capturing the attention of the groundsman. The dragline operator then used the radio to get the tractor operator to stop the equipment, but grabbed the wrong transmitter. By the time he had communicated with the tractor operator, the groundsman had been hit and run over by the cable tractor.

Appendix A: Terms, Definitions, and Formulas

Lost-Time Claim	A lost-time claim (LTC) is a claim for an occupational injury or disease which disables the worker beyond the day of injury. Included are claims for which wages compensation are paid, permanent disability claims, fatalities, and cases in which the injured worker is assigned light duties or other modified work.
Person-Years	Person-year estimates are calculated from wage and payroll data provided by account holders to the WCB. Alberta Labour uses these data to estimate. An average industry wage, and uses the average industry wage and employer payroll data to estimate person-years for each employer and each industry. One person-year is equivalent to one full-time worker working for one year, and can be assumed to equal 2,000 hours worked.
LTC Rate	The lost-time claim (LTC) rate is calculated by dividing the number of lost-time claims by the person-year estimate, and multiplying the result by 100. The LTC rate represent the probability or risk of disabling injury or disease to a worker during a period of one year's work. Comparisons of LTC rates between industries, or between years, can be used to indicate increases, decreases, or differences in this risk. $\text{LTC Rate} = \frac{\text{Number of LTCs} \times 100}{\text{Estimated Person-years}}$
Duration (Days Lost)	The duration of disability is the number of days following the injury or disease for which the worker was disabled, and unable to perform normal work duties. This information is obtained for this report from data on compensation days paid on each claim from WCB. Alberta Labour obtains these data on March 31 of the year following the claim year, and does not update the information, even though many injured workers continue to be disabled beyond this date. As a result, the duration information reported here underestimates the true impact of lost-time injury and disease.
Duration Rate	The duration rate is calculated by dividing the number of work days lost (disability days) by the person-year estimate, and multiplying by 100. The result is expressed as "days lost per 100 person-years worked", and indicates, in part, the economic impact of occupational injury and disease. Duration rates are not recommended as reliable indicators of full economic cost. In addition, readers are warned that duration rates are highly unstable when based on only a few lost-time claims; it is recommended that the duration rate not be calculated based upon fewer than 30 lost-time claims. $\text{Duration Rate} = \frac{\text{Disability Days} \times 100}{\text{Estimated Person-Years}}$
WCB Accepted Fatality	An occupational fatality is the death of a worker which result from a work-related incident or exposure and which has been accepted by the WCB for compensation. A fatality is counted in the year it is accepted.
NEC	Means "Not Elsewhere Classified"
UNS	Means "Unspecified"

Appendix B: Upstream Oil and Gas 1998 Industry Codes

<u>Sub-Sector 1:</u>	Exploration
Industries:	09200~Seismic Geophysical/Mineral Exploration 09201~Shot Hole Drilling
<u>Sub-Sector 2:</u>	Oilfield Maintenance and Construction
Industries:	06304~Oilfield Construction and/or Maintenance
<u>Sub-Sector 3:</u>	Well Servicing With Service Rigs
Industries:	09903~Well servicing with Service Rigs including Power Swivels
<u>Sub-Sector 4:</u>	Drilling of Oil and gas Wells
Industries:	09600~Drilling of Oil & Gas Wells
<u>Sub-Sector 5:</u>	Downhole & Other Oilfield Services
Industries:	06305~Field Production Operators 06306~Vacuum Removal of Waste 09900~Mud Logging 09902~Pressure Cleaning Services 09904~Rathole Drilling and Rig Anchoring 09911~Oilfield Downhole Services 09915~Well Casing Services 09921~Servicing Christmas Trees On Oil Wells 09927~Liquid Waste Treatment & Disposal
<u>Sub-Sector 6:</u>	Tar Sands
Industries:	06600~Mining & Processing of Bituminous Sand 06601~Research/Development, Oil Sands and Heavy Oil Recovery
<u>Sub-Sector 7:</u>	Oil & Gas Exploration/Development
Industries:	06300~Oil and Gas Exploration & Development-Upstream Operations
<u>Sub-Sector 8:</u>	Oilfield Trucking Services
Industries:	50720~Oilfield Trucking Services

